

REMARKS

The present invention is a method for synchronizing a receiver and a device for synchronizing a receiver. In accordance with an embodiment of the invention, a method for synchronizing a receiver comprises the steps of tracking a received signal by a first receiver (finger 1) using a first tracking method with a signal being sampled at a first sampling time (sampling in accordance Figs. 1a and 1b); tracking a delayed version of the received signal by a second receiver branch (finger 2) using the first tracking method, the signal being sampled at a second sampling time (see page 9, lines 15 et seq. of the Substitute Specification); detecting the delay between the received signal and a delayed version thereof (step 500); comparing the delay with a pre-determined threshold and when the delay falls below the threshold, tracking the delayed version of the received signal by a second tracking method (501 and 503); and wherein the first and second tracking methods differ from each other in that for a common input the first and second tracking method have at least partially different sampling instance. See page 10, lines 4-24 of the Substitute Specification in which changing of the tracking method of one of the fingers is discussed and in which the early on time and early late principle methods are mentioned which as illustrated in Fig. 1a have at least partially different sampling instances.

Claims 4-7 and 10-11 stand rejected under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as the invention. The Examiner has objected to the failure to have antecedent basis. However, it is submitted that this ground of rejection is based upon the original claims as filed and it appears to the

undersigned attorney that the Examiner did not have the Substitute Specification or Preliminary Amendment to the claims when the Office Action was prepared. In any event, the antecedent basis problem noted by the Examiner had already been corrected at the time the Examiner issued the Office Action in view of the Preliminary Amendment.

Claims 1, 8 and 9 stand rejected under 35 U.S.C. § 103 as being unpatentable over United States Patent 6,078,611 (La Rosa). The ground of rejection is traversed for the following reasons.

La Rosa teaches a rake receiver having at least two fingers which receives samples and jointly tracks and determines the delay between a signal and at least one of its delayed versions as indicated by the Examiner. However, La Rosa, does not teach the subject matter of independent claims 1 and 9 as amended wherein the claims recite first and second tracking methods with the first and second tracking methods having at least partially different sampling instances. In La Rosa, the tracking is performed by a common tracking circuit in which two rake fingers time share the common tracking circuit which uses the same tracking method. Therefore, the independent claims recite two differences between La Rosa which are that there are first and second tracking methods with La Rosa having only one tracking method which is common and further that the first and second tracking methods have at least partially different sampling instances.

There is no basis in the record why a person of ordinary skill in the art would be lead to modify La Rosa to arrive at the subject matter of independent claims 1 and 9. The use of a single tracking circuit which is time shared by rake fingers which involves using the same tracking method would not provide motivation to a person of

ordinary skill in the art to modify La Rosa to utilize the substantially different methodology of the present invention in which different tracking methods are utilized when a comparison of delay between a received signal and a delayed version thereof falls below a threshold so as to switch the tracking method of the delayed version to another tracking method with at least partially different sampling instances.

Claims 2 and 3 stand rejected under 35 U.S.C. § 103 as being unpatentable over La Rosa further in view of United States Patent 6,154,487 (Murai). Murai has been cited as disclosing details of tracking method used to track fingers. However, Murai does not cure the deficiencies noted above with respect to La Rosa. Accordingly, the subject matter of claims 2 and 3 is patentable for the reasons set forth above with respect to claim 1.

Submitted herewith is a complete set of drawings in which an amendment has been made to the reference numeral 503, which identifies the box "Separate Responses" in Fig. 5, has been changed to reference numeral 504 in order to avoid the duplicate usage of the reference numeral 503 in Fig. 3 and, further, in Fig. 7, block 701 has been amended to change the reference to delay from "1,5" to "1.5".

In view of the foregoing amendments and remarks, it is submitted that each of the claims in the application is in condition for allowance. Accordingly, early allowance thereof is respectfully requested.

If the Examiner believes that there are any other points which may be clarified or otherwise disposed of either by telephone discussion or by personal interview, the Examiner is invited to contact Applicants' undersigned attorney at the number indicated below.

To the extent necessary, Applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to the Antonelli, Terry, Stout & Kraus, LLP Deposit Account No. 01-2135 (Docket No. 1200.40363X00), and please credit any excess fees to such deposit account.

Respectfully submitted,

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AMENDMENTS TO THE DRAWINGS

Fig. 3 has been amended to correct the dual usage of reference numeral "314" to "313". Fig. 5 has been amended to correct the reference numeral "503" to "504," which identifies the "Separate Response." Fig 7, block 701 has been amended to correct "1,5" to "1.5". Three sheets of annotated drawing for Figs. 3, 5 and 7, along with a full set of replacement sheets of drawing are attached hereto as Appendix D.